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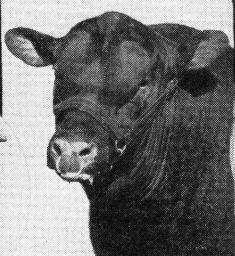
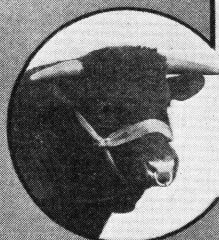
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# BEEF-CATTLE BREEDS

For BEEF  
and for  
BEEF and MILK



FARMERS'  
BULLETIN  
No. 1779

U.S. DEPARTMENT  
OF AGRICULTURE



**A** RATHER COMPLETE DESCRIPTION of the breeds of cattle kept primarily for beef or for both beef and milk on farms and on ranches in the United States is given in this bulletin.

The farmer or rancher should study his conditions and requirements before selecting a breed. If a herd is to be maintained for the production of feeder calves or creep-fed calves, it would be desirable to select a breed that has been developed primarily for beef purposes. On the other hand, if it is desired to market milk or other dairy products together with veal calves, feeders, or fat cattle, any one of those breeds or strains developed for both beef and milk will be a good choice.

There are registry associations for most of the established breeds herein described. The names and addresses of the secretaries of these associations may be obtained upon request, from the Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C.

This bulletin is a revision of and supersedes Farmers' Bulletin 612, Breeds of Beef Cattle.

Washington, D. C.

Issued October 1937  
Slightly revised December 1938

# BEEF-CATTLE BREEDS FOR BEEF AND FOR BEEF AND MILK

By W. H. BLACK, *senior animal husbandman, Animal Husbandry Division,  
Bureau of Animal Industry*

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## DEVELOPMENT OF BEEF-CATTLE BREEDS

**T**HE USE OF CATTLE as a source of food for man dates back to the earliest times for which there is definite historical record. Constructive efforts to develop cattle especially suited for beef production, however, were not undertaken until about the middle of the eighteenth century.

Practically all the beef breeds that are widely distributed throughout the United States had their origin in England and Scotland, and the first real progress in cattle breeding in those countries may be attributed to the work of such men as Robert Bakewell, the Colling brothers, Amos Cruickshank, Richard Tompkins, and Hugh Watson. In the latter part of the eighteenth and early part of the nineteenth centuries importations of British breeds of beef cattle to the United States were begun.

Frequent later importations have been made up to the present time, and these cattle, together with those which have been raised in this country, have been responsible for the excellent type of beef breeds now distributed throughout the United States. The pronounced beef characteristics of the beef breeds easily distinguish them from the dairy breeds, which have been developed principally for the production of milk and butterfat.

In the process of developing strictly beef breeds on the one hand and dairy breeds on the other, there have been evolved strains, and in some cases breeds, of cattle which may be classed as neither strictly beef nor dairy breeds. The cows of such breeds produce a moderate quantity of milk, and the calves develop into fairly good beef animals. These are termed dual-purpose breeds by some and dairy-type beef breeds by others.



In some farming areas there is a demand for greater milk production than can be expected from the average strictly beef-bred cow. In the range areas, however, only sufficient milk to insure the development of a good calf for the first 6 or 8 months of its life is desired. The tendency in such areas is to develop the beef characteristics to the highest degree and to avoid the danger of udder troubles in cows by breeding only for light milk production.

The type which is bred strictly for beef is, generally, rectangular, extremely low-set, very wide and deep, early maturing, and deep fleshing, particularly in the regions of the valuable cuts such as over the ribs, back and loin, and in the hind quarters. The type suitable for producing both beef and milk has the same general characteristics as the strictly beef type, but to a lesser degree, and has greater development of the milking characteristics.

There is some variation in the weights of typical representatives of the several beef breeds. Yet certain individuals in any of the breeds can be made to reach almost any weight within reason, depending largely upon feeding and development. Mature bulls of any of the beef breeds, in thrifty breeding condition may be expected to weigh from 1,500 to 1,800 pounds and mature cows from 1,100 to 1,300 pounds.

#### BREEDS DEVELOPED IN THE BRITISH ISLES

##### ABERDEEN ANGUS

The Aberdeen Angus breed originated in the county of Aberdeen, in Scotland under rather rigorous conditions as regards environment. The land in Aberdeenshire is largely rolling to rough and not particularly fertile except in the valleys adjacent to the streams.

The early history of the Aberdeen Angus breed in the United States dates back to the importation, in 1850, of a cow named "Duchess" brought from Portlethen, Scotland. This cow apparently produced no noteworthy offspring. In 1873 George Grant of Victoria, Kans., imported three bulls. These bulls adapted themselves to the range, running with common stock. In 1883, 14 steers, sired by Grant's bulls, were sold on the market at the Kansas City stockyards. These steers created a very favorable impression and were probably responsible for many later importations of Aberdeen Angus breeding stock. The breed increased rapidly in popularity and today is found in nearly every State, the greatest numbers being in the Corn Belt or Midwestern States.

Aberdeen Angus cattle are distinguished from other breeds by their black color, comparatively smooth coats of hair, and polled character (figs. 1 and 2). These cattle are good rustlers and able to adapt themselves very readily to the varied conditions throughout the United States. They seem to thrive well in the warmer climates of the South as well as in the colder regions of the North. They cross well with cattle of other breeds. The bulls possess a high degree of ability to transmit the polled character and black color to their offspring. Approximately 95 percent of the calves sired by an Aberdeen Angus bull and out of grade, horned cows are black in color, and about 90 percent are hornless.

The Aberdeen Angus are bred and raised almost exclusively for beef purposes. However, many strains within this breed are fairly good milkers, and it is only rarely that a cow of this breed fails to give sufficient milk for the proper development of her calf.

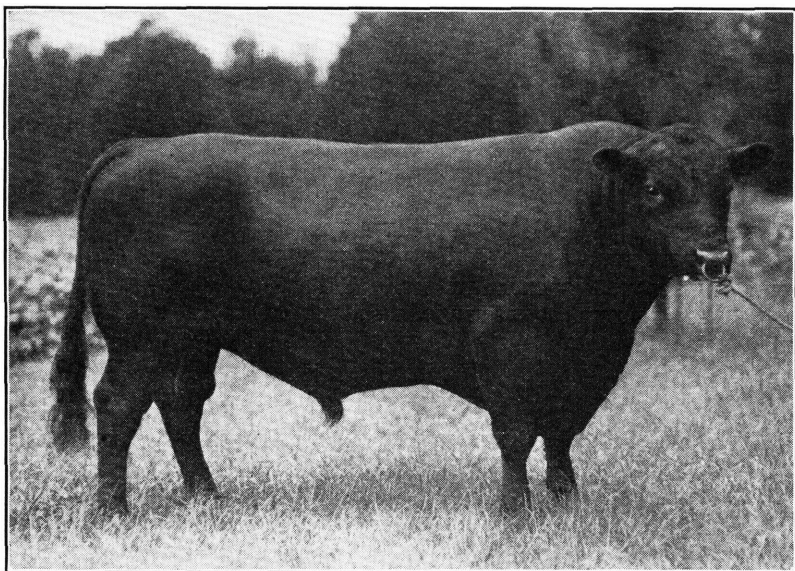


FIGURE 1.—Aberdeen Angus bull.

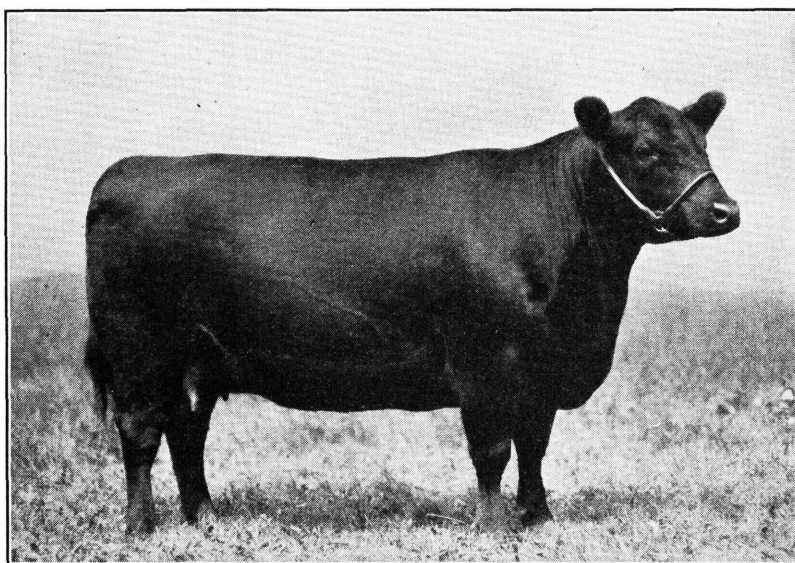


FIGURE 2.—Aberdeen Angus cow.

Aberdeen Angus cattle hold an enviable record in the feed lot and as fat slaughter cattle. This is due primarily to their ability



to mature at an early age and at almost any age to produce carcasses of high quality meat with a high dressing yield.

The American Aberdeen Angus Breeders' Association was formed in 1883 and published volume I of the herdbook in 1886. Forty volumes had been published up to 1936. According to the association, the following bulls have been prominent in the development of the breed in the United States: Heather Lad of Emerson 2d 19049, Black Monarch of Emerson 30331, Black Woodlawn 42088, Lucy's Prince 46181, Prince Ito 50006, Baden Lad 61883, Blackbird Ito 64116, Star of Denison 82426, Sir Blackbird 98347, Earl Eric of Ballindalloch 100422, Oakville Quiet Lad 109220, Undulata Blackcap Ito 2d 116275, Erwin C 136625, Earl Marshall 183780, Ensign of Page 236754, Blackcap Revolution 287269, Prizemere 9th 292556, Prizemere 32d 369132, and Eileenmere 32d 428072.

The prominent Aberdeen Angus families in the United States are as follows: Barbara, Blackbird, Blackcap, Elba, Heatherbloom, Miss Burgess, Pride of Aberdeen, Queen Mother, and Trojan Erica.

#### DEVON

The Devon breed originated in England in the county of Devon, which is a part of the Devonshire district between the Bristol and English Channels. The climate of this section is damp and chilly much of the time, the topography rolling to rough, and the soil only fair in fertility. These factors have resulted in the development of a breed somewhat smaller in size than those developed under more favorable conditions.

Two strains of Devons have been developed in Devonshire, known as the North Devon and South Devon. The North Devon has been

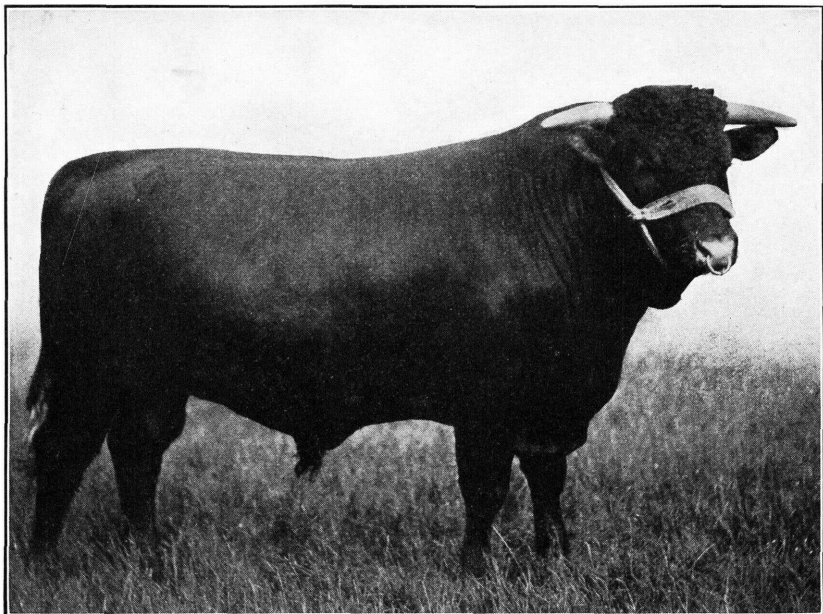


FIGURE 3.—Devon bull.

developed for beef and beef and milk, some families being very beefy, while others have both milk and beef characteristics to a fair degree. The South Devon has been developed primarily for dairy purposes. As practically all the importations into the United States have been of the northern type and all the developmental work has been with that type, only the North Devon is discussed here.

Importations of Devon cattle were made into Massachusetts by Winthrop and Davenport as early as 1800, and into New York in 1805 by General Eaton. Soon afterward other importations were made into Maryland and the New England States. The greatest number of Devons in the United States are found in the New England States. While there has been no recent development of Devon cattle breeding in the South Atlantic and Gulf States except in a limited way, there are still traces of Devon blood in the native herds from southern Florida to southern Texas, indicating that in the early days, this blood was used rather extensively in these areas. Cattle showing Devon blood seem to thrive in these warmer locations, indicating that the breed has hardiness and evidently is adaptable to the Southern States. In the Devon breed, some strains tend toward the dairy type and others toward the beef type. Most Devon cows, however, give good quantities of milk. Figure 3 shows a Devon bull with rather pronounced beef characteristics, while figure 4 represents a cow exemplifying the milking qualities more than the beef characteristics.

The Devon is red in color. The white or waxy horns, usually with dark tips, curve upward, forward, outward, and backward in the

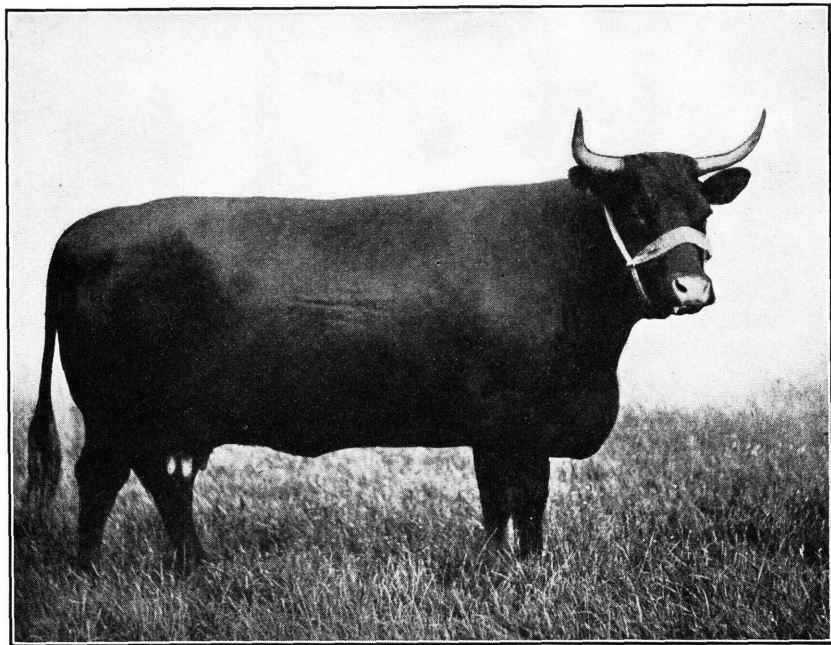


FIGURE 4.—Devon cow.



cow, and are one of the outstanding characteristics of the breed. The horns of bulls tend to be straight, as illustrated.

Volume I of the American Devon Record was published in 1881 by James Buckingham, of Zanesville, Ohio, and in 1905, when the American Devon Cattle Breeding Association was formed, the American Devon Record became the official register.

#### GALLOWAY

The Galloway breed originated in the southwestern peninsula of Scotland, principally in the counties of Wigton and Kirkcudbright, the locality known in early history as the Province of Galloway.

Like that of the home of the Devon, the climate of Galloway is damp and chilly much of the time. The topography of the greater

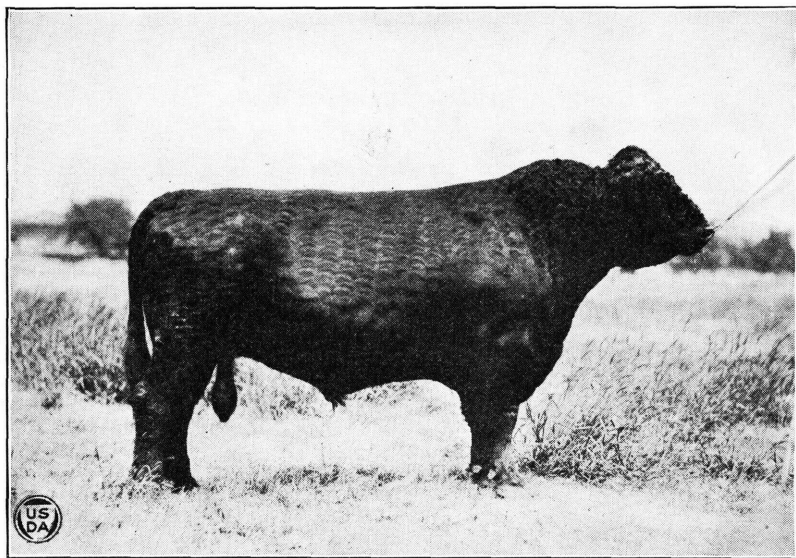


FIGURE 5.—Galloway bull.

part of this section is rather rough, but the grazing even in the higher elevations (somewhere around 2,000 feet), is very good. Under these conditions a very hardy breed of beef cattle has been produced.

There is no definite record of the introduction of the first Galloways into the United States. It is known, however, that some cattle of this breed were in the United States previous to 1870, when Galloways were imported into Michigan. They spread generally throughout the North Central States because of their hardiness and ability to rustle in the colder regions. Today most of the herds are found in the western part of the Corn Belt, mostly in Kansas.

Galloway cattle are black in color, polled, and resemble to some extent the Aberdeen Angus. They may be distinguished from the Aberdeen Angus by their curly hair and possibly by their heads, which have more rounded polls. The Galloways are similar to the Aberdeen Angus cattle in their ability to transmit the polled char-

acter and black color to the offspring, when crossed with horned breeds. A typical Galloway bull is shown in figure 5 and a typical heifer in figure 6.

Galloways have been bred with the idea of developing a beef animal of high quality, little attention being given to the milking characters. The cows, however, generally give sufficient milk for the proper development of their calves.

That Galloways are capable of producing high-quality beef carcasses is shown by their consistent winnings of championships at the London and Edinburgh fat stock shows.

The American Galloway Breeders' Association was organized in 1882. According to the association, the following sires are among those contributing to the development of the breed in the United

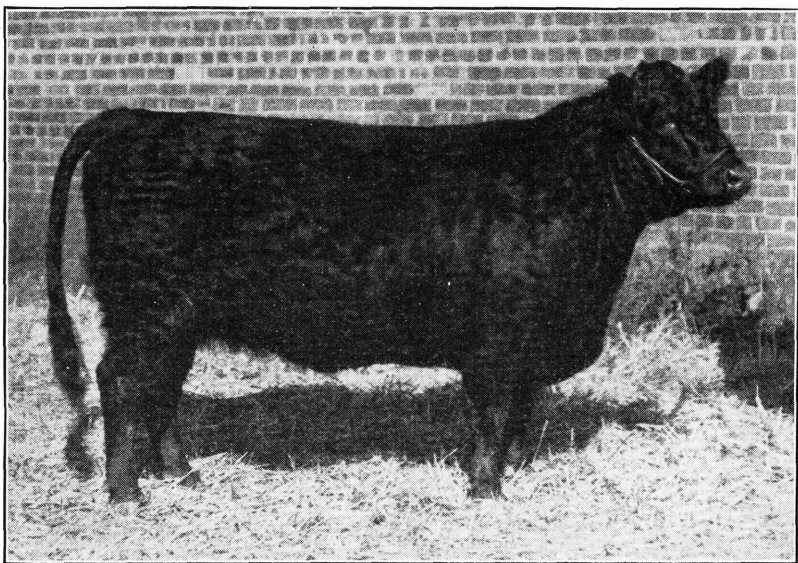


FIGURE 6.—Galloway heifer.

States: The Pathfinder 3d (5991), Druid of Castlemilk (6159), Scottish Standard (6488), Great Scot (6489), Bondsman (7306), Excelsior (7702), Worthy 3d (7762), Keystone (9689), and Sweepstakes (10001).

#### HEREFORD

The Hereford breed originated in England in the county of Hereford. The locality known as Herefordshire lies between the Severn River and the eastern boundary of Wales. This section has much fertile valley and plains land which produces pastures and crops abundantly. The excellent pastoral and climatic conditions of this section have been very favorable to the development of a breed capable of utilizing grass very advantageously.



The earliest importations of Hereford cattle into the United States, of which there is authentic record, were those made by Henry Clay and Lewis Sanders of Kentucky, in 1817, and those given the Massa-

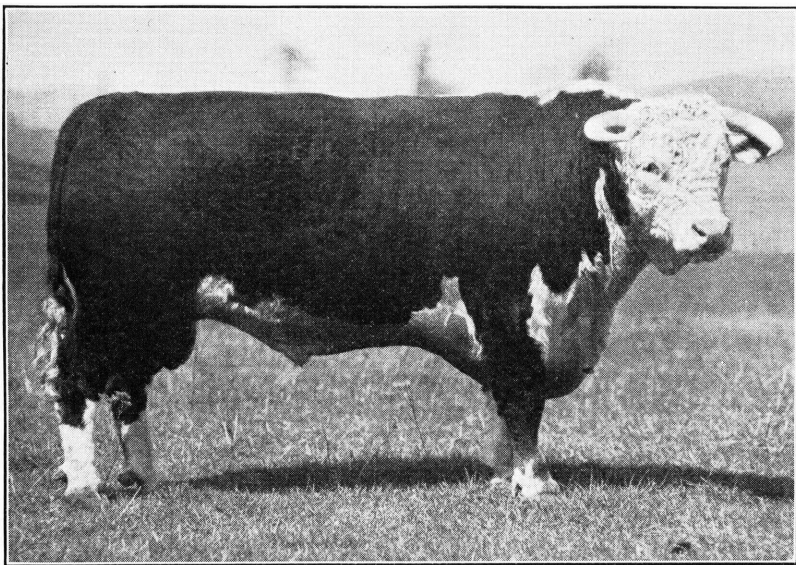


FIGURE 7.—Hereford bull.

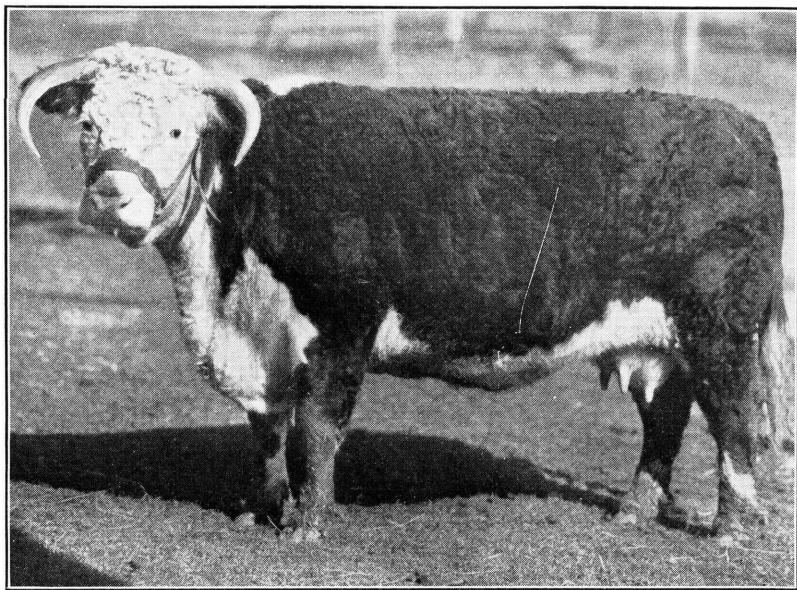


FIGURE 8.—Hereford cow.

achusetts Society for the Promotion of Agriculture by Admiral Coffin of the Royal British Navy about 1825. These were soon followed by numerous importations. The breed increased in favor very rap-

idly and now has wide geographical distribution in the United States.

The Hereford is strictly a beef breed and has met with unusual favor as a rustler in the range areas of the West, Northwest, and Southwest, where it exceeds in numbers all other beef breeds combined.

The Hereford is readily distinguished from all other breeds by its color markings—red body and white face. The white color is found also on the underline, flank, crest, switch, breast, and below the knee and hock.

As Herefords have been raised exclusively for beef purposes, milking qualities have not been stressed. It is the exception, however, when a cow fails to furnish enough milk to raise her calf. A typical Hereford bull is shown in figure 7 and a typical cow in figure 8.

The American Hereford Cattle Breeders' Association was organized in 1881 and published in that year volume 1 of the American Hereford Record. The official name of the association was changed on October 22, 1934, to the American Hereford Association.

The following sires are among those which have contributed much to the development of the breed in the United States: Anxiety 4th 9904, Don Carlos 33734, Beau Brummel 51817, Beau Donald 58996, Perfection Fairfax 179767, Domino 264259, Repeater 289598, Gay Lad 16th 316946, Beau Blanchard 362904, Gay Lad 9th 386873, Bocaldo 6th 464826, Prince Domino 499611, Woodford 500000, Braemore 666666, Panama 100th 786758, Dandy Domino 2d 1090962, Hazford Tone 1093542, Mischief Mixer 27th 1179215, Beau Blanchard 155th 1202407, Hazford Rupert 25th 1209734, Prince Domino 2d 1222880, Hartland Mischief 1314000, Prince Domino Mixer 1458747, Prince Domino C. 1565007, WHR Royal Domino 2d 1849068.

#### POLLED HEREFORD

In the United States there have been developed within the Hereford breed strains without horns, termed "Polled Herefords." They were established by Warren Gammon in 1901 through the mating of Hereford cattle that were naturally polled. By the use of Polled Hereford bulls on horned Hereford cows, the numbers have increased materially. The polled bulls have transmitted the hornless character to a large percentage of their calves from horned cows.

Polled offspring whose sire and dam are both recorded in the American Hereford Herdbook are eligible in the Double Standard Polled Hereford Record. Offspring whose sire and dam are recorded in either the American Hereford Herdbook or the American Polled Hereford Record are eligible in the Single Standard Polled Hereford Record.

Polled Herefords are increasing in popularity, particularly in those States where feeder cattle are produced and where screwworm infestation is troublesome.

A typical Polled Hereford bull is shown in figure 9 and a cow in figure 10.



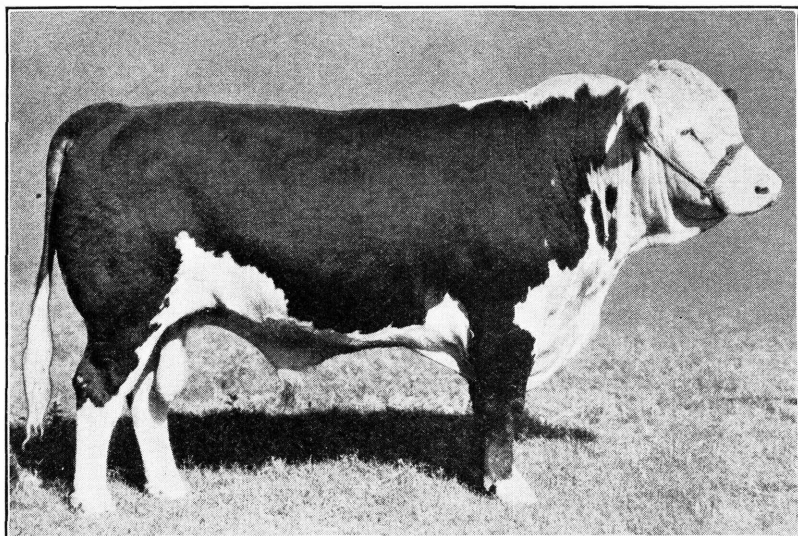


FIGURE 9.—Polled Hereford bull.

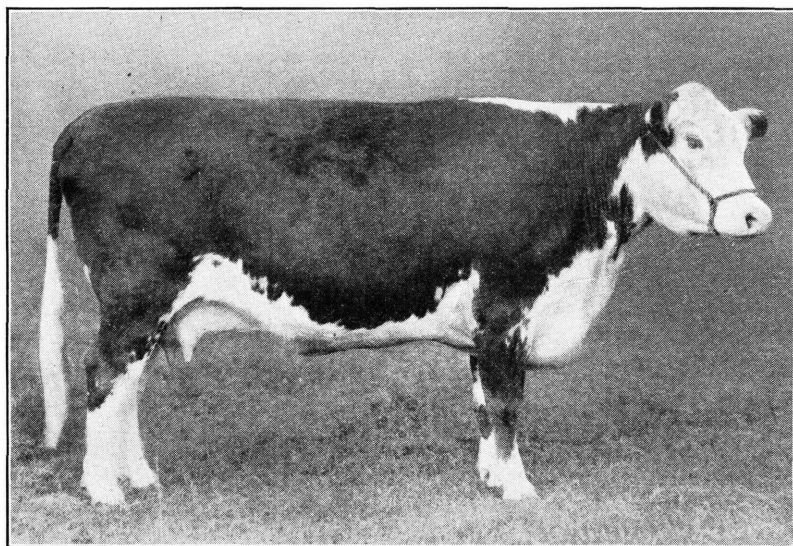


FIGURE 10.—Polled Hereford cow.

#### RED POLLED

The Red Polled breed originated in the counties of Norfolk and Suffolk, in the eastern middle coastal section of England by crossing the horned Norfolk cattle with polled Suffolk cattle. The Norfolk type was noted, in the early history of that section for its fleshing qualities, whereas the Suffolk type was considered to possess good milking qualities.



Records show the first authentic importations of Red Polled cattle were made by G. F. Taber, of New York in 1873, 1875, and 1882. In 1882 Mead and Kimball, of Vermont, also brought in an important

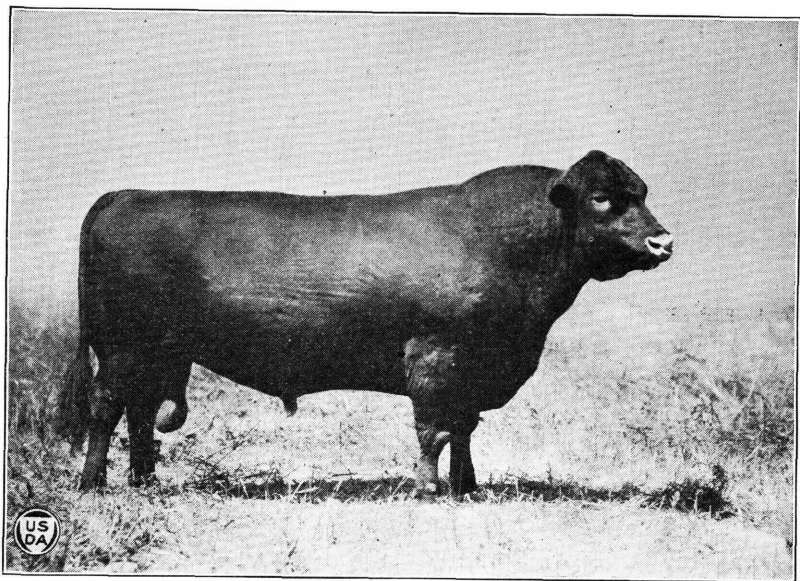


FIGURE 11.—Red Polled bull.

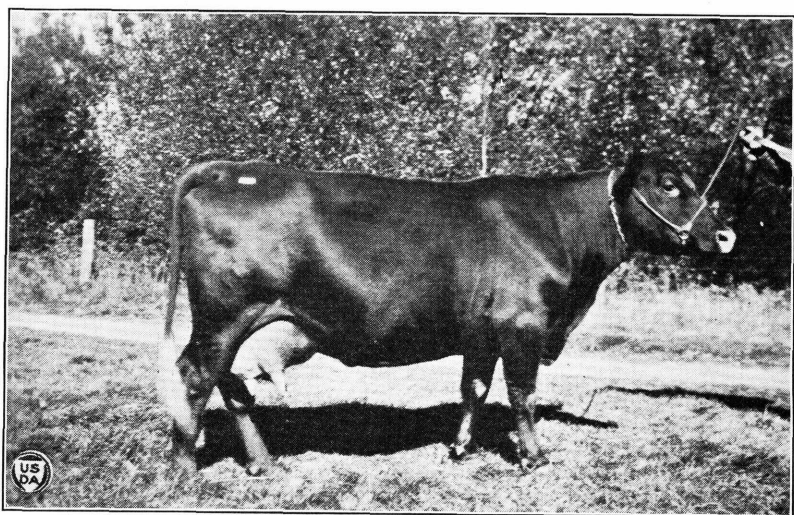


FIGURE 12.—Red Polled cow.

shipment. As a result of these and other importations the breed is now well distributed throughout the United States, the greatest numbers being found in the Midwestern States.

Red Polled cattle, as the name indicates, are red in color and polled, thus being easily distinguished from other breeds. They

have proved themselves to be good farm cattle, as the cows are capable of producing comparatively large quantities of milk and the calves are capable of growing into desirable beef. A representative bull is shown in figure 11 and a typical cow in figure 12. The breed is considered early maturing and adaptable to conditions throughout the United States. Bulls have been used rather extensively with native cows in the Southeastern States, and the calves produced have been comparatively uniform in conformation and type.

The bulls which have contributed materially to the improvement of the breed as reported by the Red Polled Cattle Club are as follows: Corporal 4313, Demon 5421, Abbotsford 4721, Nailor 7396, Irwin 8253, One Price 8523, Proctor Knott 12092, Cremo 13018, Logan 13500, Dafter 15871, Teddy's Best 17603, and Elgin 19464.

The Red Polled Cattle Club of America was organized in 1883.

It reports the following families as being popular in the United States: Dorothy, Luna, Pear, Lillette, Cosy, Beauty, Constant, Rebuna, Unity, Upland, and Linwood.

#### SHORTHORN

The Shorthorn breed originated in the counties of Durham, Northumberland, and York, in northeastern England. Perhaps the earliest constructive breeding was in the valley of the Tees River, which forms the boundary between Durham and York Counties. This valley has very productive land, early history mentioning the fine pastures, root, and other farm crops. These excellent pastoral and general-farming conditions have been conducive to the development of one of the largest of the beef breeds.

The first importation of Shorthorns into the United States of which there is any definite record was made in 1783 by Miller and Gough of Virginia and Maryland, respectively. The cattle included in this early importation have sometimes been called Teeswater and Durham, but these terms are essentially obsolete today. Lewis Sanders, of Kentucky, who imported Shorthorns in 1817, Samuel Thorne, of New York, and Abram Renick, of Ohio, who imported foundation animals in 1853, are often mentioned as the founders of the breed in the United States.

Shorthorns, in general, are distinguished readily from other breeds by their color markings. Roans (blended red and white hairs) are perhaps most numerous, although there are considerable numbers of reds with small white markings usually about the belly, forehead, and lower parts of legs and switch. Pure white individuals are not infrequent. In size the Shorthorn is not surpassed by other breeds of beef cattle. Their rectangular shape is more or less characteristic of the breed.

There were three separate herdbooks for Shorthorn cattle in the United States previous to 1883. In that year the Shorthorn breeders held their first national convention and decided to consolidate all registrations in one herdbook. The first volume after consolidation was no. 24, issued in 1883.

There are today three types of Shorthorn cattle in the United States, designated by the American Shorthorn Breeders' Association as Beef Shorthorn, Milking Shorthorn, and Polled Shorthorn.



## BEEF SHORTHORN

The Beef Shorthorn is especially adapted to farming areas where there is an abundance of feed. Owing to their size, they are capable of using large quantities of roughage which in many localities is

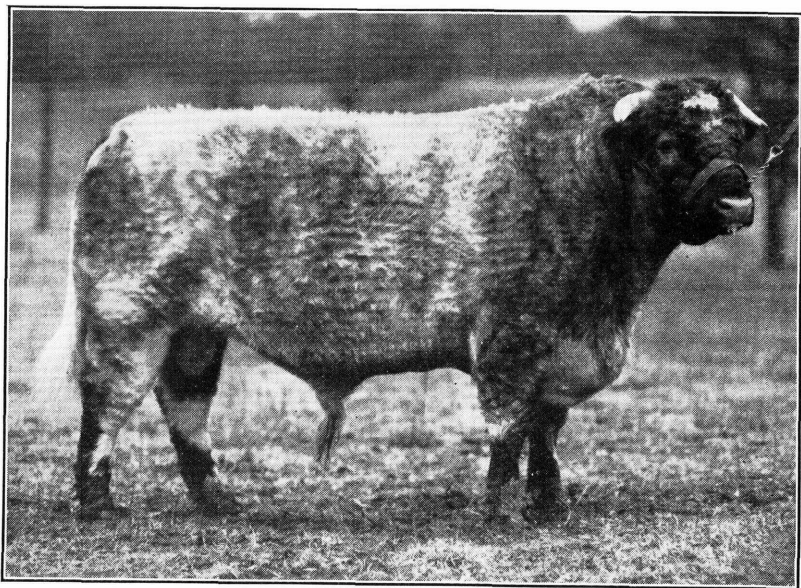


FIGURE 13.—Beef Shorthorn bull.

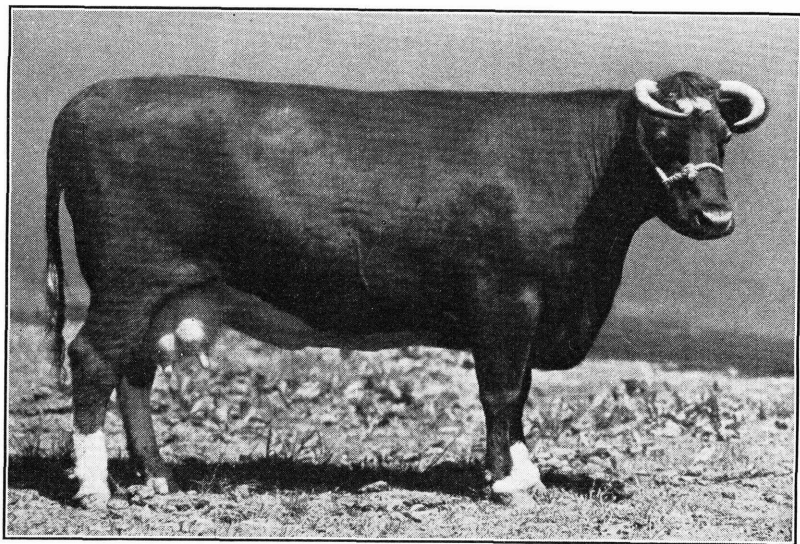


FIGURE 14.—Beef Shorthorn cow.

not readily marketable as such. The Beef Shorthorn crosses unusually well with so-called native cattle, as well as with other breeds, in the production of commercial beef cattle. Beef Shorthorns are



well distributed throughout the United States, the greatest numbers being found in the Corn Belt area. Shorthorn cows of the beef strain are usually good milkers and accordingly produce rapid-growing calves.

The Shorthorn has been criticized somewhat for faults frequently associated with rapid-growing animals that usually mature into somewhat leggy types. Its breeders have made rapid progress in overcoming the objectionable faults in the modern-type beef animal, the result being the low-set, smooth, and thick-fleshed cattle which enjoy widespread popularity.

Figure 13 illustrates the beef type of Shorthorn bull, and figure 14 shows the beef-type cow.

According to the American Shorthorn Breeders' Association, sons and grandsons of the following bulls are aiding especially in carrying on improvement work: Whitehall Sultan 163573, Avondale 245144, Villager 295884, Gainford Marquis 370987, Lavender Sultan 474341, Cudham Dreadnaught 860431, Prentice 1005345, Browndale Count 1156438, Collynie Clipper Crest 1259323, Browndale Archer 1406824.

Among the most popular families of Scotch Shorthorns are listed: Rosewood, Augusta, Lavender, Clipper, Missie, and Duchess of Gloster.

#### MILKING SHORTHORN

Strains of Shorthorns that have been developed for the production of milk as well as beef are termed "Milking Shorthorns" in the

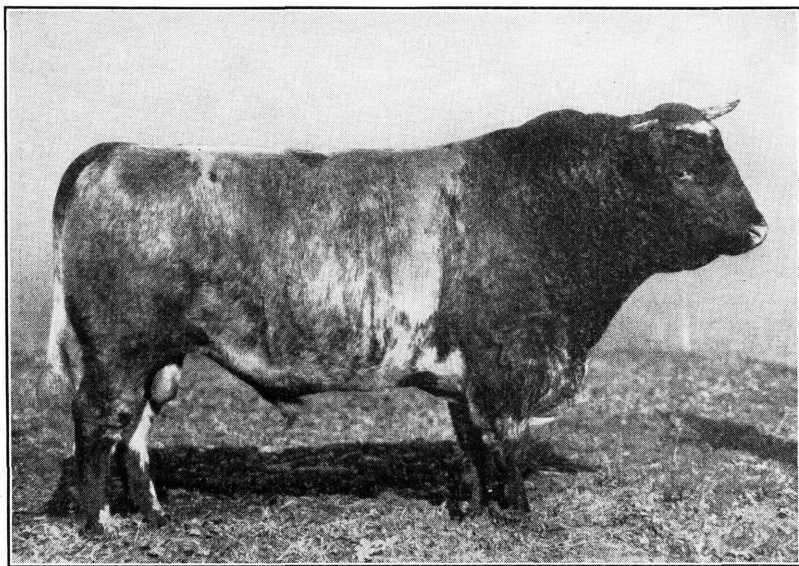


FIGURE 15.—Milking Shorthorn bull.

United States, dual-purpose Shorthorns in Canada, and dairy Shorthorns in England and Australia. Although it has been the aim of breeders of this type to develop strains the cows of which would

be capable of producing large quantities of milk and the steer calves capable of producing carcasses acceptable to the beef trade, the tendency has been to give the milking qualities more emphasis than

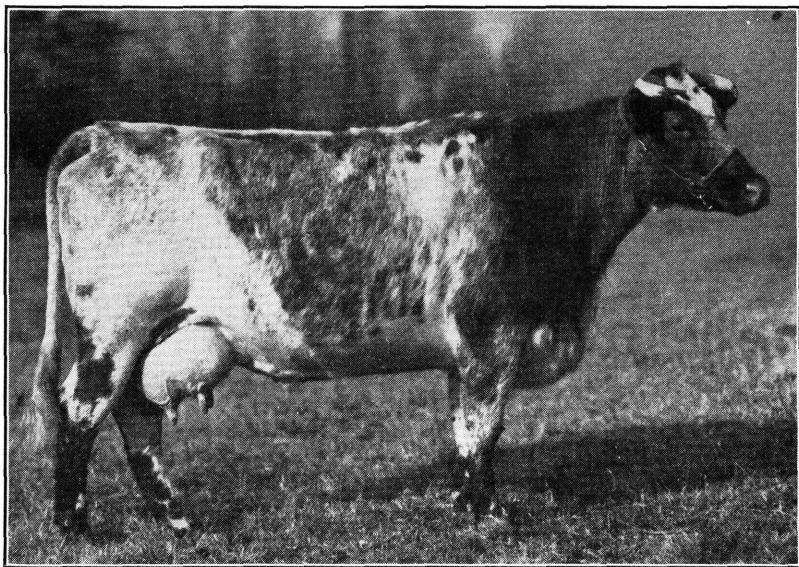


FIGURE 16.—Milking Shorthorn cow.

those associated with beef. Nevertheless, considerable progress has been made and the Milking Shorthorn has met the requirements of many farms, particularly in the Corn Belt and eastern and southeastern United States, where income in the way of dairy products is desired in addition to a calf crop.

Milking Shorthorn cows have made excellent records from a milk-production standpoint. Although Milking Shorthorn steer calves have not made the highest quality of beef, they have produced carcasses that have been very acceptable. Also many excellent crosses with other breeds have been produced.

A representative Milking Shorthorn bull is shown in figure 15, and a typical cow in figure 16.

Bulls that have figured prominently in the development of Milking Shorthorn strains in America are as follows: Royal Knight 448999; Northwood Pride 4th 1413346; General Clay 255920; General Clay 4th 847636; Flintstone Gift 807690; Balthazar 614650; Darlington Duke 1306326; Glenside Dairy King 443881; Walgrove Conqueror 802132; Preshute Saltpan 1542772.

#### POLLED SHORTHORN

The Polled Shorthorn strain had its early development in the Midwestern States of Ohio, Indiana, Illinois, and Iowa, beginning in the eighties.

Polled Shorthorns were known as Polled Durhams until 1919. By that time about 95 percent of the polled strains were "double



standards", that is they were the polled offspring from parents both of whom were registered in the American Shorthorn Herdbook. Double standards may be recorded in both the Polled Shorthorn Herdbook and the American Shorthorn Herdbook. The Polled Shorthorn is very similar to the Beef Shorthorn but, as the name implies, it is hornless. Polled Shorthorns became eligible to registry in the American Shorthorn Herdbook on January 1, 1923.

The American Shorthorn Breeders' Association claims that the two bulls contributing most to the early foundation of the breed were Young Hamilton X 49 S. H. 114169 and Ottawa Duke X 185 S. H. 109292.

Whitehall Sultan blood has been used to a great extent in late years, and this line of breeding has been credited with much of the progress made by the breed. Much credit is also due to the introduction of

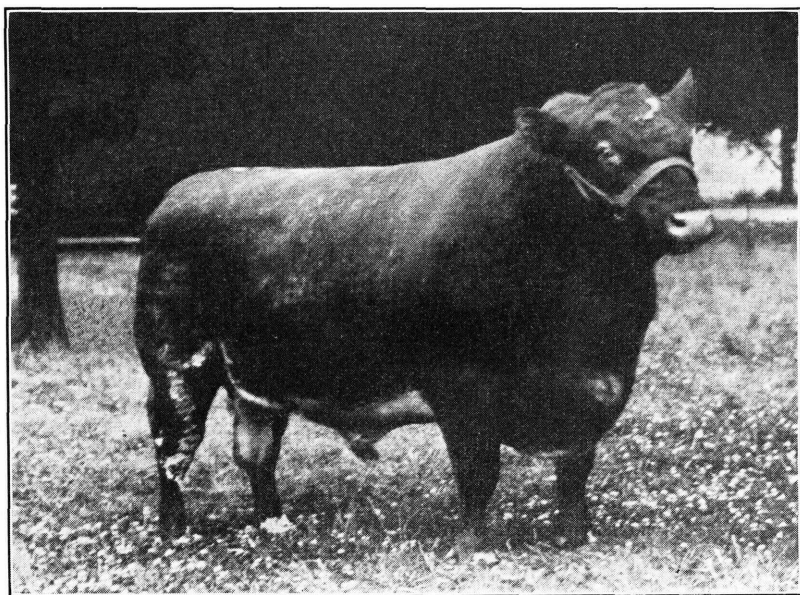


FIGURE 17.—Polled Shorthorn bull.

Scotch blood through cows tracing to Imp. Victoria 51st by Royal Duke of Gloster 29864; Imp. Princess Royal 64th by Scottish Archer 59893; Imp. Lady of the Meadow by Chancellor 68693; and Imp. 12th Duchess of Gloster by Champion of England 17526.

Figure 17 illustrates a desirable type of Polled Shorthorn Bull.

#### BREEDS INTRODUCED FROM INDIA AND AFRICA

##### BRAHMAN (ZEBU)

The term Brahman (Zebu) has been designated by the United States Department of Agriculture as the name for all breeds of "Indian cattle" in the United States. These cattle are commonly known as Brahmans or "Brahmas" in southern Texas, and as "Zebus" in South America. In India in the early days these cattle were used primarily for milk and work and were rarely killed for meat. The people of India in general showed great respect for them from the

earliest times on record. Certain animals were considered sacred, which explains why the cattle have sometimes been called the "sacred cattle" of India.

There are numerous strains of cattle in India which belong to the *Bos indicus* species. Most of these strains are given the name corresponding to the Province in which they were raised or have been developed. Brahman cattle are characterized by a prominent hump above the shoulders, abundance of loose, pendulous skin under the throat, on the dewlap, navel, and sheath. Good specimens of the breeds have great depth of body and show considerable depth of muscling in the loins and hind quarters. The rump is drooping, although in the best individuals it is rather full and rounding. The ears are usually long and drooping, and the voice is more of a grunt than a low, being quite unlike that of the European breeds.

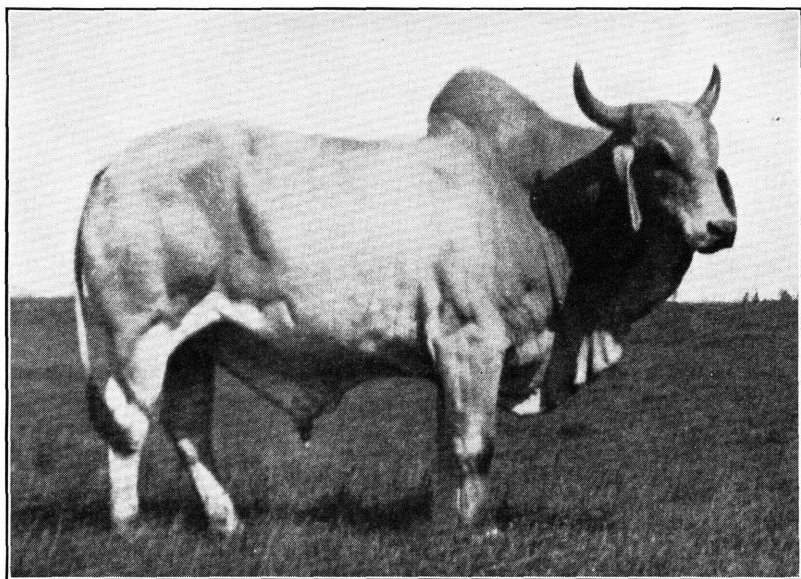


FIGURE 18.—Brahman bull (Guzerat breeding).

Records show that humped cattle of India were imported into the United States as early as 1849; and that other importations followed shortly thereafter. The '49 introduction is reported as having been made by J. B. Davis of South Carolina. Later importations were presumably made into Georgia, Louisiana, and Texas. It is claimed by some of the early settlers in South Carolina that two Brahman bulls and four cows were brought to South Carolina from Egypt in 1835 by Campbell R. Bryce, associated with a Dr. Bachman, both of Columbia, S. C. The most important importations of Brahman cattle to the United States were those made by A. P. Borden, executor of the Pierce Estate, at Pierce, Wharton County, Tex., in 1906, and one made from Mexico by John T. Martin, of San Antonio, Tex., in 1924. These cattle from Mexico had been shipped there from Brazil, South America. The cattle which have been imported



from India consisted mostly of the following breeding: Nellore, Guzerat, Krishna Valley, and Gir. The Borden shipment was mostly of Nellore breeding, while Guzerats made up the bulk of the Martin importation.

The use of Brahman cattle in the United States has been confined almost entirely to the Gulf coast region, the greatest numbers being found between New Orleans, La., and Brownsville, Tex.

The Guzerat is one of the long-eared strains of Brahman cattle, and perhaps the largest and beefiest of the species used in the United States. It has become the most popular type since the 1924 importation. The bulls of that introduction have contributed most to the development of Brahmans in the United States. This may be

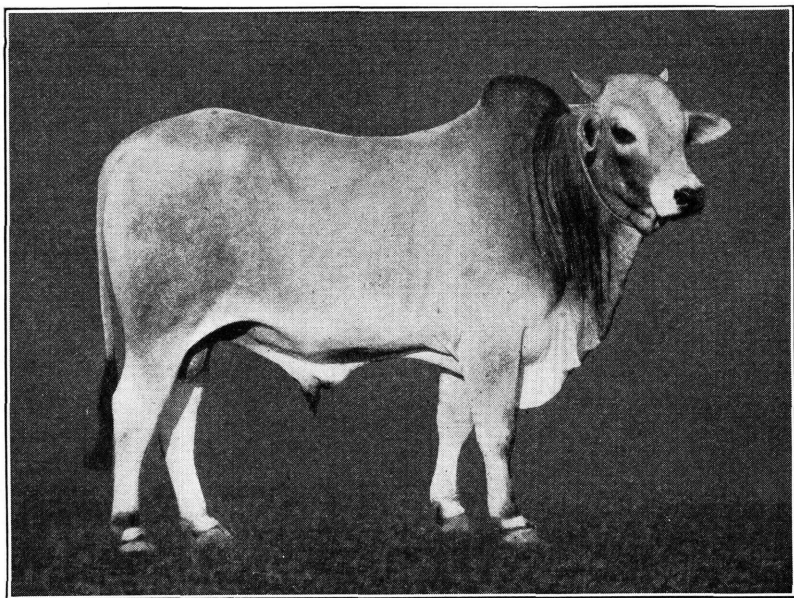


FIGURE 19.—A yearling Brahman bull (Nellore breeding).

attributed to their beefy characteristics, large scale, and heavy bone, and ability to cross well with the breeds commonly raised in this country. A bull of Guzerat breeding is shown in figure 18.

Animals of Nellore breeding rank next in popularity to the Guzerat and are distinguished from it by their smaller ears, finer bone, and lighter color. The Nellore color varies from steel gray to almost white, while the Guzerat is of darker shades, some animals being nearly black. In the Nellore, dark color bordering on black is common about the head, neck, shoulders, withers, and hindquarters. A yearling bull of Nellore breeding is shown in figure 19.

Other strains of Brahman cattle in the United States, including the Gir, Krishna Valley, and Hissar, are found only in small numbers. As they are of only limited interest, they will not be discussed in this bulletin.

## EFFECT OF BRAHMAN CATTLE IN CROSS-BREEDING WORK

The primary purpose in introducing Brahman cattle into the United States was cross breeding with the breeds commonly raised in this country in order to develop a type or types that have greater adaptation to the Gulf coast region. Brahmans seem to endure hot weather very well even when no shade is available, and they will travel long distances to water. They have loose hides which provide a greater surface for evaporation, and the fact that this species of cattle is credited with having sweat glands, whereas cattle of other species have none or at least only rudimentary ones, may explain why the Brahmans are well suited to a climate such as that of the Gulf coast region.

One of the most outstanding results of the attempts to establish these characters in the common breeds through cross breeding is a strain developed in the vicinity of Kingsville, Tex. This strain traces back to 1918, when a grade Shorthorn cow was bred to a Brahman bull of Nellore breeding. Later matings with a Guzerat bull and selective inbreeding produced an outstanding bull of solid red color and desirable beef conformation. The name of this bull was Santa Gertrudis, from which the strain takes its name. Animals of this strain represent approximately five-eighths Shorthorn and three-eighths Brahman breeding.

## AFRICANDER

The Africander is a comparatively new breed in the United States. As the name implies, it was developed in Africa and introduced into the United States for the purpose of improving the hardiness of the

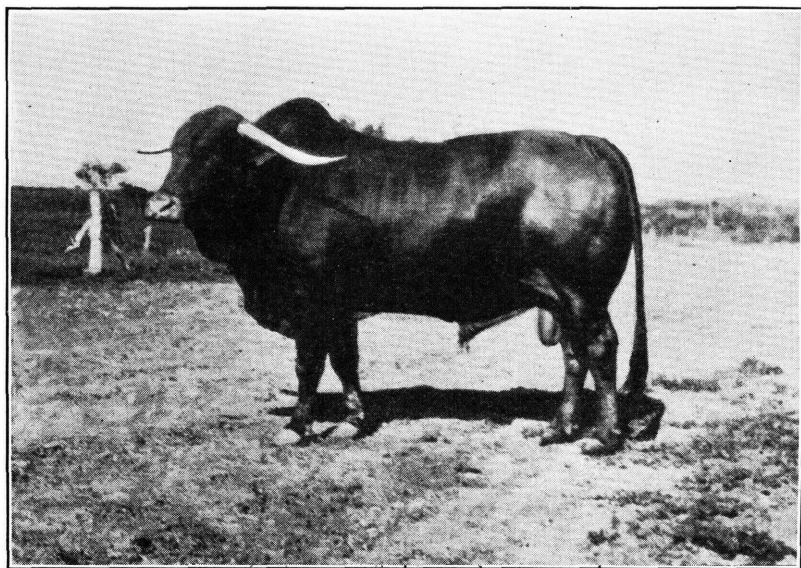


FIGURE 20.—Africander bull



beef cattle in the Gulf coast region. The Africander has a hump over and slightly in front of the shoulders, and horns that droop downward or slightly backward. The color may vary from dark to light red, but the dark predominates. The hump is different from that of the Brahman, that of the Africander being more rounded, not so pendulous, and blended more smoothly into the shoulder than that of the Brahman.

Africander cattle are very smooth but are inclined to be somewhat leggy and fine-boned. This character is attributed to the fact that the early Dutch settlers in South Africa developed them strictly for draft purposes. It was the desire to develop cattle that would be capable of covering great distances and at the same time be good draft animals for farm work. The cows produce only a small quantity of milk which is comparatively high in butterfat. In fact the milking qualities were considered undesirable, as the Dutch settlers believed that heavy milkers would not be suitable work animals.

The first and only importation of Africander cattle into the United States was made in 1931 by the estate of Henrietta M. King, at Kingsville, Tex. The shipment consisted of 16 bulls and 13 cows and heifers that were selected in South Africa through the cooperation of the Bureau of Animal Industry, United States Department of Agriculture.

The breed is especially hardy, having been developed under very adverse conditions in Africa, where grazing was poor and where the animals were exposed to the many diseases, insect pests, and parasites prevalent at that time. While the breed is new to southern Texas, it has shown exceptional adaptability, by keeping in very good condition on the native vegetation.

Figure 20 shows an Africander bull and figure 21 some typical heifers.

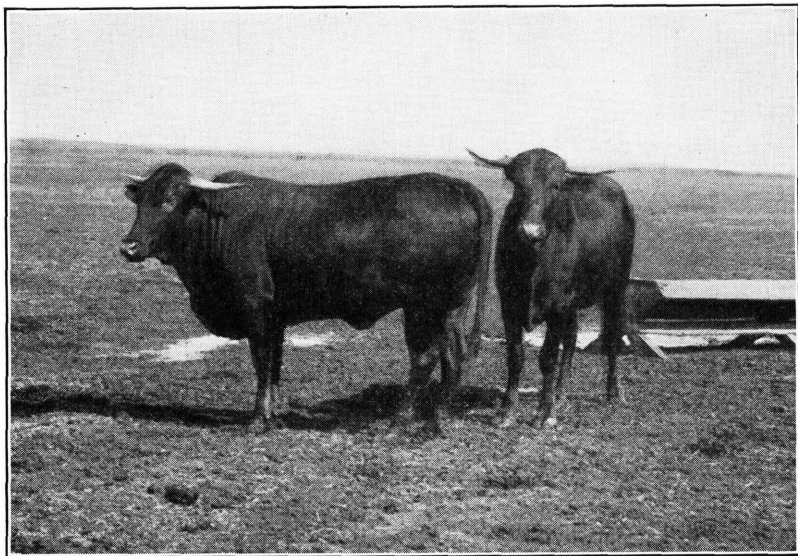


FIGURE 21.—Africander heifers.

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